with spinal cord contusion injury or motor neuron degeneration causing reduction of locomotor function and neuromuscular strength, a therapeutically effective amount of at least one β_2 adrenergic agonist to increase locomotor function and neuromuscular strength in the patient, wherein the effective amount of the β_2 adrenergic agonist is from about 0.5 to about 100 μg per kg of body weight.

4. The method of claim 1, wherein the β_2 adrenergic agonist comprises clenbuterol or a salt thereof.

5. The method of claim 1 wherein the β_2 adrenergic agonist comprises salbutamol or a salt thereof.

6. The method of claim 37 wherein the effective amount of the β_2 adrenergic agonist is from about 0.5 to about 1000 μg per kg of body weight.

7. The method of claim 40 wherein the effective amount of clenbuterol is from about 0.5 to about 1000 μg per kg of body weight.

8. The method of claim 41 wherein the effective amount of salbutamol is from about 0.5 to about 1000 μg per kg of body weight.

9. The method of claim 40, wherein the effective amount of clenbuterol is greater than about 0.25 mg/day per kg body weight.

10. The method of claim 41, wherein the effective amount of salbutamol is

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greater than about 0.25 mg/day per kg body weight.

Please add the following new claims 37-43.

37. A method of rehabilitation following spinal cord contusion injury to the lower thoracic spine, the method comprising administering to a mammalian patient with spinal cord contusion injury in the lower thoracic spine causing reduction of locomotor function and neuromuscular strength, a therapeutically effective amount of at least one β_2 adrenergic agonist to increase locomotor function and neuromuscular strength in the patient

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38. The method of claim 37, wherein the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, BRL-47672, terbutaline, fenterol, memproterenol, isoprenline, MJ-9184-1, trimetoquinol, tetrahydropapaveroline, soterenol, salmefamol, rimiterol, QH-25, isoetharine, R-804, orciprenaline, quinterenol, sulfonterol, dobutamine, and isoproterenol and salts of the foregoing.

39. The method of claim 37 wherein the β_2 adrenergic agonist is selected from the group consisting of salmeterol, ractopamine, cimaterol, BRL-47672, terbutaline, fenterol, memproterenol and isoprenline and salts of the foregoing.

40. The method of claim 37 wherein the β_2 adrenergic agonist comprises clenbuterol or a salt thereof.

41. The method of claim 37 wherein the β_2 adrenergic agonist comprises salbutamol or a salt thereof.